International Application No. PCT/JP2004/017121
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Title: A METHOD FOR PRODUCING A LIGHT-EMITTING DEVICE
REPLACEMENT SHEET

FIG.5

START OF PRODUCTION OF LIGHT-EMITTING DEVICE PROVIDED WITH MINUTE EMBOSSED STRUCTURES FOR PREVENTING MULTIPLE REFLECTION

S1

LAYER SEMICONDUCTOR LAYER ON TRANSPARENT
CRYSTAL SUBSTRATE (FORM LIGHT-EMITTING LAYER)

S2

TRANSFER LAYER FORMING STEP
(#10) ARRANGEMENT OF TRANSFER-LAYER MATERIAL
    (#11) CASE 1: ARRANGE TRANSFER LAYER ON TRANSPARENT CRYSTAL SUBSTRATE
    (#12) CASE 2: ARRANGE ON SEMICONDUCTOR LATER
    (#13) CASE 3: SEPARATE TRANSPARENT CRYSTAL SUBSTRATE AND ARRANGE
         TRANSFER LAYER ON SEMICONDUCTOR LAYER (SUBSTRATE BEARING
         LAYER IS FORMED ON SEMICONDUCTOR LAYER AS PREPROCESSING)
(#20) SOFTENING OF TRANSFER-LAYER MATERIAL
    (#21) IN THE CASE OF THERMOPLASTIC MATERIAL:
        SOFTENING BY SUPPLYING ENERGY (HEAT, LIGHT)
    (#22) IN THE CASE OF SOFT MATERIAL: SOFTENING IS
        COMPLETED BY ARRANGING THE MATERIAL

S3

TRANSFERRING STEP
(#30) ARRANGE MOLD FORMED WITH MINUTE EMBOSSED
    STRUCTURES ON TRANSFER-LAYER MATERIAL
(#40) PRESS MOLD AGAINST SOFTENED LAYER TO TRANSFER MINUTE EMBOSSED
    STRUCTURES
(#50) SOLIDIFY SOFTENED LAYER AND FIX MINUTE EMBOSSED STRUCTURES
    (#51) IN THE CASE OF THERMOPLASTIC MATERIAL: SOLIDIFICATION AFTER COOLING
    (#52) IN THE CASE OF THERMOSETTING MATERIAL: SOLIDIFICATION AFTER HEATING
    (#53) IN THE CASE OF LIGHT-SETTING MATERIAL: SOLIDIFICATION BY IRRADIATION
        WITH LASER BEAM
(#60) SEPARATE MOLD FROM TRANSFER-LAYER MATERIAL

S4

MULTIPLE-REFLECTION PREVENTING STRUCTURE FORMING STEP
(#70) CASE 1: ETCHING IS CARRIED OUT FROM THE UPPER SURFACE OF TRANSFER
    -LAYER MATERIAL HAVING THE MINUTE EMBOSSED STRUCTURES TRANSFERRED
    THERETO UP TO BACKING LAYER TO FORM MINUTE EMBOSSED STRUCTURES
    IN BACKING LAYER
(#70) CASE 2: MINUTE EMBOSSED STRUCTURES TRANSFERRED TO AND FIXED IN
    TRANSFER LAYER ARE USED AS MINUTE EMBOSSED STRUCTURES AS THEY ARE

S5

CUT SUBSTRATE INTO INDIVIDUAL CHIPS OF LIGHT-EMITTING DEVICES

END